A SITUATION AND ANALYSIS REPORT FOR PRODUCERS IN BRITISH COLUMBIA OF:

- Cauliflower
- Celery
- Lettuce

Province of
British Columbia
Ministry of
Agriculture and Food

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PROLOGUE

This package represents the first in a series of situation and outlook reports for vegetables grown commercially in B.C. The papers are designed to update and expand upon the information contained in the B.C. Vegetable Marketing Guide.

While we are no longer publishing the Weekly Produce Price Report, we are monitoring daily price and market information for most vegetables produced commercially in B.C. This database provides the basis for the enclosed reports. Calls from existing and prospective growers have indicated a need for concise, yet thorough and current market outlook packages covering such details as: volume and price histories, regulatory aspects of vegetable production, profiles on competing markets, tariff information, and grading standards, etc.

In addition to the commodity papers, daily price and market information on most commercial vegetables can be obtained by calling the Market Research and Analysis unit at 576-2911.

This year, for the first time, price and market information has been made available on a regular basis to district B.C.M.A.F. offices throughout the province. It is expected that this will be recorded on phone-in tapes throughout the province in order that growers can access information on a 24 hour per day basis without having to call long distance. Growers in the interior of the province are requested to contact the horticulturist at any of the following offices for further details:

Kamloops	Al Oliver	374-3614
Prince George	George Emmond	963-9685
Dawson Creek	(no horticulturist)	782-5931
Oliver	John Parsons	498-2420
Creston	Richard Hallman	428-5371
Vernon	John Price	545-1387

Please feel free to contact the Market Research and Analysis unit should you have questions or comments with regard to the papers enclosed. As always, your feedback is valuable.

COMMODITY ANALYSIS

CAULIFLOWER

Production of B.C. cauliflower is currently concentrated in the lower mainland region of the province where approximately 773 acres were planted in 1983. Close to 40% of this volume is planted for the processing market. Current planting indications suggest strong volumes for both the fresh and processing markets in 1984.

Vancouver Island acreage has shown steady increases over the last few years. In 1983, 103 acres were planted, with total yields moved through fresh market sales.

To date, plantings of commercial fresh market cauliflower have been sporadic in other regions of the province. In northern B.C., (Prince George, Terrace, Smithers) small, but viable acreages have been planted over the last few years. Interest in cauliflower production has been expressed by a number of growers in the Kootenays with small trial acreages to commence this season.

Marketing:

Cauliflower is a regulated commodity under the administration of the B.C. Vegetable Marketing Commission. As such, growers of cauliflower for either the fresh or processing market, who plan production in one of the Commission's three regulated zones in the province, must register with the Commission prior to planting.

Fresh market sales are handled by the B.C. Vegetable Marketing Commission's sales agencies in each of the three zones. On the lower mainland, the Cloverdale Lettuce and Vegetable Co-op, grades, packs, and sells cauliflower on the grower's behalf. Growers are responsible for delivering cauliflower to the co-op as per a mutual delivery system. The Co-op sets a weekly price for cauliflower in accordance with the current market conditions, and growers realize a pooled price for their product with appropriate deductions for administration and handling fees, etc. Cloverdale Lettuce and Vegetable Co-op operates a joint sales office, with Western Greenhouse Grower's Co-op.

On Vancouver Island, the Island Vegetable Grower's Co-op provides essentially the same services. The Island Vegetable Co-op does not operate a cello wrapping line for cauliflower however. Product is shipped by the growers to the co-op where it is graded and packed. Prices are usually established weekly in accordance with market conditions.

As production in the interior has historically been confined to non-regulated areas (i.e. north of the 53° parallel), growers have assumed the responsibility of marketing cauliflower themselves. Production has been small enough that individual arrangements have not jeopardized local market prices. Should volumes show substantial increases, growers may want to consider a marketing structure of some form.

South of the 53° parallel, marketing of cauliflower is regulated by the B.C. Vegetable Marketing Commission. As such, it is sold through the Interior Vegetable Marketing Agency Co-op. Unlike other sales agencies, the I.V.M.A. functions solely as a sales desk without warehouse facilities. All grading, cooling, and packing of product is done at the farm gate. Growers ship to designated buyers at the I.V.M.A.'s market price. As with other agencies, prices are set weekly in accordance with the prevailing market conditions.

Volumes:

As unload figures indicate, California is the major competing area of supply for the Vancouver market. An average 680,000 lbs. of fresh cauliflower has been shipped through the Vancouver wholesale market on a monthly basis over the last four calendar years. In 1983, during the peak months of the local marketing (July-November) season, B.C. growers (primarily lower mainland) commanded approximately 65% of the total Vancouver wholesale market.

	TTL Unloads (000 lbs)	B.C. Unloads (000 lbs)	Wash. (000 lbs)	Cal. (000 lbs)	B.C.% Mkt. Share* %
1980	8152	2851	110	5174	81
1981	8292	788	415	7025	29
1982	8237	2458	177	5602	76
1983	8037	2095	171	5623	65

*B.C.'s market share during the peak local marketing season months (July to November inclusive)

As this time series suggests, 1980 was a peak year for B.C. shipments to the Vancouver wholesale market. However, with the exception of 1981, which was a disastrous crop year in general in the Fraser Valley due to extremely high rainfall, B.C.'s percentage share of the total market, during the local season, has been relatively strong. Obvious potential for import displacement exists given that a number of marketing issues are addressed. The total market size, (total unloads to the Vancouver wholesale market for the entire calendar year), has remained in the 8 to 8.2 million pound range. Imports from California, have averaged 5.4 million pounds, with the exception of 1981, when severe local shortages warranted heavy U.S. purchasing. Total annual (calendar year) B.C. unloads have been above the 2 million pound level with the exception of 1981.

Most cauliflower moving through the Vancouver wholesale market originates from the lower mainland. While unload figures cannot quantify the scope of total production in the province, they can offer a fairly accurate profile of the fresh market at large.

While growers on the Island are certainly subject to competition from imports in terms of price, their percentage share of their local market is strong. This is borne out by figures indicating disbursement of the crop over the last three seasons. As the following figures suggest, production of cauliflower on the Island has almost doubled in the last three years.

VANCOUVER ISLAND CAULIFLOWER MARKETED
(cases at 30 lbs.)

1983/4	1983/3	1981/2
79,941	52,565	40,963

Heavier production has necessitated exports off the Island in order to market the crop profitably. Cauliflower, is in fact, Vancouver Island Growers Co-op's largest export crop.

EXPORTS OF ISLAND CAULIFLOWER
(cases at 30 lbs. each)

	1983/4	1982/3
To Vancouver:	16,567	6,377
To Prairies:	17,560	5,379
Vanc./Prairies Total	34,127	11,756
% of total Island crop exported:	43 %	19 %

Volumes produced in other areas of the province are, as previously stated, minimal. Potential to increase production in interior markets is evident given that a number of marketing issues are addressed. In particular, development of these markets will hinge on the growers' and the I.V.M.A.'s ability to sell a consistent quality pack to the industry, competitive with that offered by imports.

Price:

The price B.C. growers realize for their cauliflower is dependent to a very large extent on the landed Vancouver price of imported cauliflower. Specifically, supply and demand conditions in California and to a lesser extent Washington, will determine the local market tone to an appreciable degree.

A number of factors can affect market conditions. Abrupt weather changes can alter offerings dramatically, and consequently prices. Growers in B.C. must assess the impact market conditions in competing markets will have on local markets in the short and long run.

For example, the agencies handling regulated products generally set their prices weekly. Sales managers must anticipate any dramatic turn of events that will skew their movement during the coming week. If a flood in California drastically cuts cauliflower supplies, prices may escalate rapidly overnight. This may or may not warrant a B.C. price increase depending on factors such as the following:

(i) What are local volumes anticipated to be for the coming week.

(ii) What is the quality of local product.

(iii) Are there other major cauliflower sources in California that can fill supply gaps on short notice. With the volume and scale of production in California, this is often the case. What may appear initially as 'very light offerings' can alter quickly in the short run if alternate supply sources come into play.

(iv) What is the anticipated condition of cauliflower that can be harvested from the flood area. If in fact, a fair amount of flood damaged product can be salvaged it may well be price discounted because of condition to move quickly. This could have a depressing effect on price both in California and B.C.

If is obvious that a pricing decision is a complex process. It is ever so important to guage changing market conditions as objectively as possible.

EXPLANATION OF PRICING TERMINOLOGY

(1) F.O.B. Price: Shipping Point Price

The first step involved in assessing a market price locally is determining the F.O.B. price range in B.C.'s competing areas of supply.

The F.O.B. is the price of a produce item from its original point of sale. In B.C., the F.O.B. price of a regulated product would be interpreted as the agency list price, (F.O.B. originating from Vancouver, Victoria or Vernon). For an unregulated B.C. product, the F.O.B. price would likely be a farmgate quote. The F.O.B. price/shipping point price is the cost of the item as it leaves the warehouse, farmgate or whatever. Therefore this price will not usually include charges such as palletizing, customs clearance, tariff, cooling, inspection, transportation, etc. In the U.S., the F.O.B. forms the base price that we use to calculate a landed Vancouver cost.

It is important for growers to acknowledge that at any one time, a range of F.O.B. prices are usually quoted for products, both in B.C. and the U.S. In B.C., that range will reflect the prices quoted by different growers for unregulated product at the farmgate. In the U.S., the market distribution channels are somewhat different. Within the major markets there are usually a number of shipping houses handling a variety of product. All quote "F.O.B." prices everyday, and it is from a sampling of these houses that we establish a "market" for the day. Rarely is there "one firm" price on an item. However, there is usually an indication of the price that buyers are "mostly" responding to.

Local F.O.B. prices are quoted in Canadian dollars, and U.S. F.O.B.'s are always in U.S. dollars.

(2) Landed Vancouver Price:

This is the price local sales agencies and growers will want to watch closely. Local cauliflower must be competitive with the landed Vancouver price of California or Washington cauliflower in order to gain and maintain market share. To calculate the landed Vancouver price of most produce items originating in the U.S., the following steps are necessary:

(a) Begin with the F.O.B. price (in U.S. $), (generally, the price most often quoted by the shipping houses surveyed is used or what is deemed to be the 'average' market price for the day).

(b) Add the following charges if they apply per case:
- cooling (usually $.50-.65 U.S.)
- palletizing ($.20 U.S.)
- customs clearance ($.10 U.S.)
- inspection ($.10 U.S.)
- gassing, etc. (note: charges will vary with shipping houses)

(c) Multiply the total against the current exchange rate to arrive at a Canadian dollar total.

(d) If a tariff is in effect, it is applied at this point.

(e) Next, take the transportation rate, which is usually in U.S. dollars and multiply against the current exchange rate.

(f) Add the transportation rate, now in Canadian dollars to the total arrived at in steps (c) or (d) to determine the Landed Vancouver Price in Canadian dollars.

Example:

Cauliflower: F.O.B. quotes are ranging $7.00-8.00 for a case of cello wrapped 12's...(i.e. 12 cello wrapped heads per carton). A range of landed Vancouver prices is calculated:

	LOW		HIGH
	$7.00	(U.S. $)	$8.00 (U.S. $)
plus	.65	cooling, palletizing, etc.	.65
	7.65		8.65
x	1.25	current exchange rate	x 1.25
	9.56		10.81
x	1.05	assuming tariff is in effect @ 5% ad valorem	x 1.05
	10.04		11.35

Transportation rate:

If product is originating in the Salinas area of California, the current transportation rate is approximately 4.7 cents (U.S. $) per lb. A carton of Cauliflower (12's) weighs roughly 35 lbs., therefore the rate would be $1.64 (U.S.) per carton.

$1.64 x current exchange rate = $2.05, Canadian dollars.

Now add:

LOW		HIGH
$10.04		$11.35
+ 2.05		+ 2.05
12.09		13.40

Therefore, the landed Vancouver price of California cauliflower is ranging $12.09 - 13.40, Canadian dollars.

As a cautionary measure, the bottom end of the range is usually considered as the target price to compete with. It is extremely important however, that agencies and growers do not base their pricing decisions solely on the landed Vancouver price range. As previously stated, if not more important are the market trends determining F.O.B. quotes at any one time. Growers and agencies must weigh prices carefully against factors such as current supply, and demand anticipated volumes in the short run, quality of local and imported product, etc.

PRICE HISTORY

As the accompanying graph suggests, a consistent margin is maintained on local pricing between cello wrapped and naked packs. Prices for both packs reached a low mid August as local volumes peaked and ample volumes of imported product flowed into the Vancouver market. Local product was able to achieve and maintain a brief premium over the LVP of California cauliflower early in the season before stable weekly volumes were established. This premium was realized again at the conclusion of the harvest period.

The 1983 season saw relatively strong pricing through the bulk of the peak months. It is essential that readers relate pricing and unload tables in their observation of the 1983 price history. Gaps between the California LVP and local pricing are obvious. In most instances, California product is commanding a premium when local volumes are on the increase. As well, during periods of questionable quality locally, imported product will likely be priced higher.

The LVP of Washington cauliflower is not included on the accompanying graphs. While the limited volumes being imported from Mt. Vernon inhibited long range price monitoring last season, growers

should acknowledge that this import source is, and will continue to be an increasingly important competitive factor. Even though relatively small quantities of Washington cauliflower were shipped through the Vancouver wholesale market, last season, price quotes from Mt. Vernon did depress local pricing to a significant extent. Mt. Vernon cauliflower was landing in Vancouver last season in the $8.00-9.00 range during many of our peak volume periods. In several instances the LVP of Washington cauliflower was beneath that of California.

As a general guide, California cauliflower LVP's range between $9.00 and $11.00 for most of the season. As the graphs indicate, prices do fluctuate within these ranges considerably.

1984 OUTLOOK FOR CALIFORNIA ACREAGE

The first estimates for California fresh market 1984 cauliflower acreage were released recently by the U.S.D.A. California acreage for fresh market harvest April to June inclusive is placed at 8,200 acres, up 22% over the same period in 1983. Acreage by area is central coast--6,200, San Joaquin Valley and south coast - 2,000. Harvest is progressing well. Fields are in good condition and volumes to date have been plentiful

LVP prices on California cauliflower have been under pressure through much of 1984 because of increased volumes. Longer term outlooks for California acreage in 1984 infer continued heavy volumes.

QUALITY

Discussions with Vancouver wholesalers revealed a number of common quality criterion. Wholesalers are demanding tight white heads, consistent quality, uniform sizing, and adequate trimming. Local cauliflower shelf life is perceived to be 3-4 days as compared to 6-8 days on California product. Black spotting was cited as a common negative characteristic of local product. Innovative marketing techniques by the Cloverdale Lettuce and Vegetable Co-op will likely help to dispel this perception. 1983 saw successful

test marketing of cauliflower florets in selected lower mainland retail stores. This market will be pursued in greater volume in 1984. Marketing of florets permits extensive usage of heads that would normally be culled because of black spotting on small areas. Returns to growers should increase if this proves successful on a larger scale.

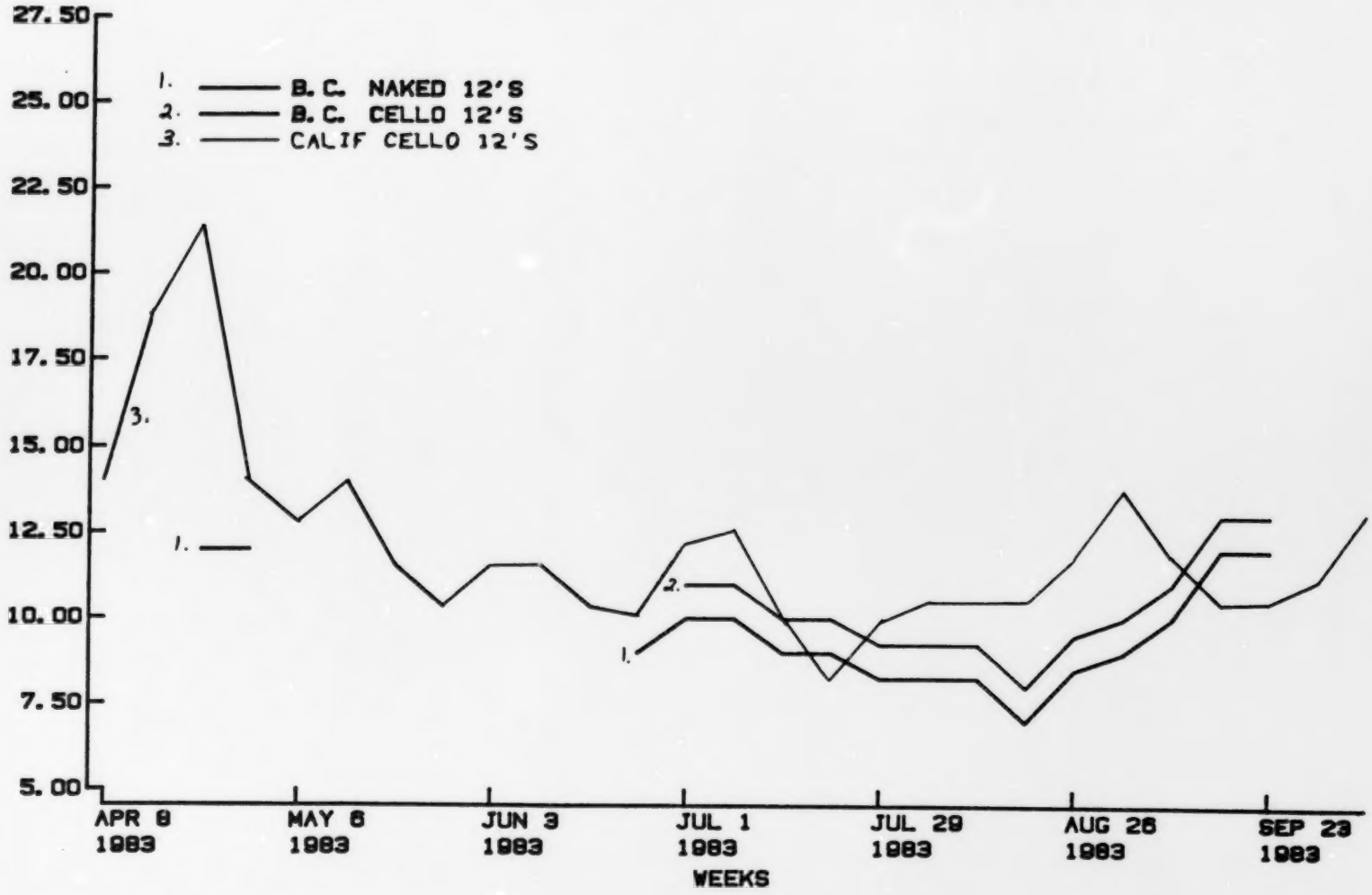
OVERWINTERED MARKET

While this has strong potential, current marketing arrangements threaten long term development of the market. Overwintered cauliflower is harvested early April, on the Island. Marketing is handled by the Island Vegetable Co-op, where consistent quality standards have been successfully maintained. This unfortunately has not been the case on the lower mainland where the majority is grown. Product has been field packed with frequent incidents of inconsistent quality reported by Vancouver wholesalers. Quality concerns include loose heads, light to yellow colouring, small, and inconsistent sizing, poor trimming and inadequate cartons.

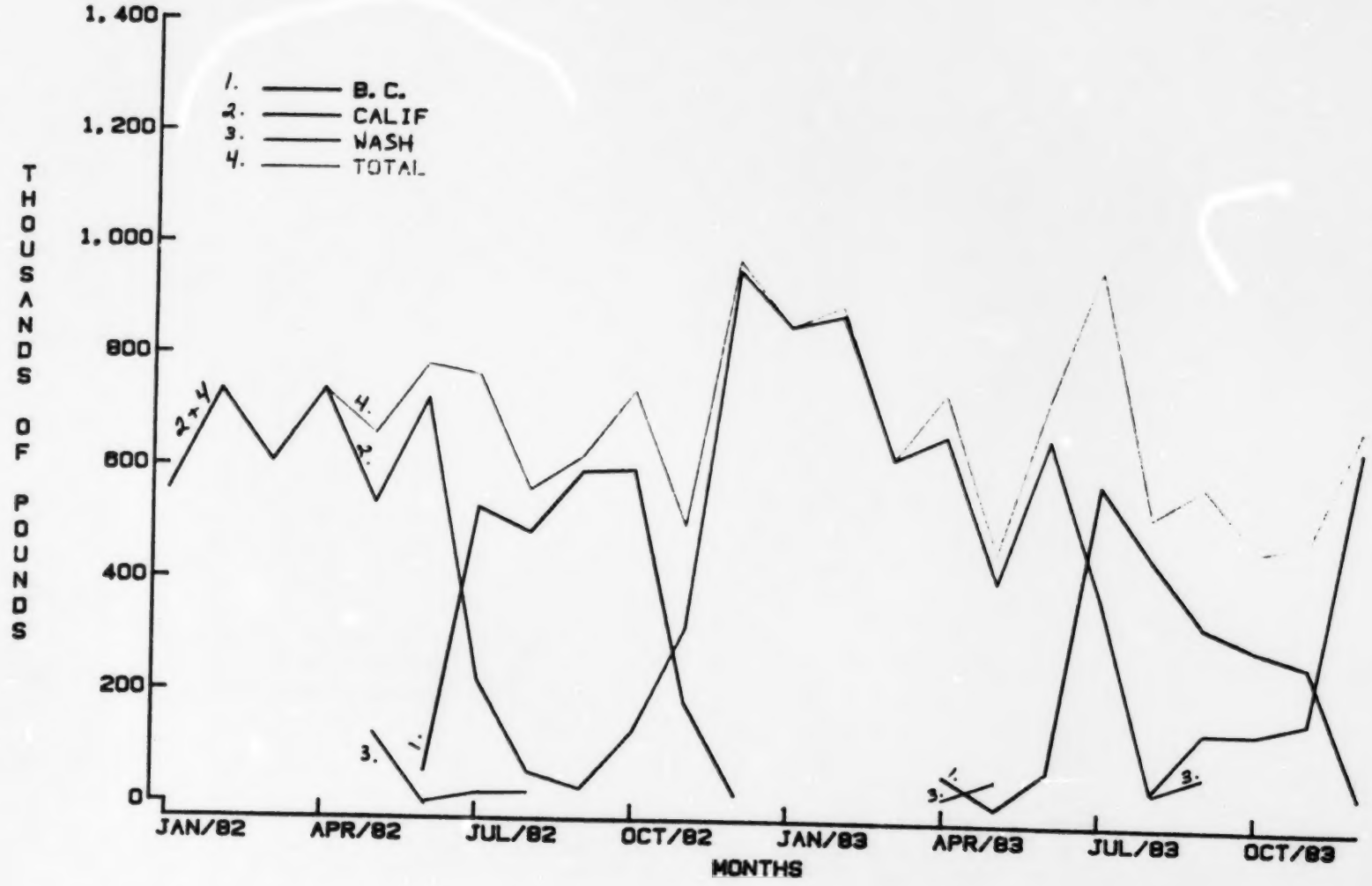
In terms of price, potential to achieve relatively good returns is good. Generally, California cauliflower is landing in Vancouver at prices above $12.00 for cello 12 packs. While it is impossible to guarantee this pricing level annually, growers should be aware of the possibility of premium prices, if high quality standards can be achieved.

In addition to quality, growers must be prepared to work as an industry to ship consistent volumes to the local trade at competitive prices. Repeated incidences of price undercutting among growers does little to induce confidence in local wholesalers.

B. C. CAULIFLOWER PRICES F. O. B. VANCOUVER NAKED 12'S
B. C. CAULIFLOWER PRICES F. O. B. VANCOUVER CELLO 12'S
CALIFORNIA CAULIFLOWER LANDED VANCOUVER CELLO 12'S CDN$



UNLOADS OF FRESH CAULIFLOWER BY SOURCE
TO THE VANCOUVER WHOLESALE MARKET 1982-83



Storage Recommendations for Cauliflower[1]

Temperature: 32°F (0°C)
Relative humidity: 90-95%
Cauliflower is not usually stored. If necessary, however, it can be held, at a high relative humidity, for about 2 weeks at 32°F (0°C) or 1 week at 40°F (4.4°C) provided the produce is placed in storage in good condition immediately after harvest. Cauliflower is usually packed in crates after being harvested and trimmed. It is best to place the heads downward to avoid damage by contact with water, soil, or other foreign matter. Spoilage of cauliflower in storage may occur through wilting or decay, or through white curds in the heads maturing and turning brown, or starting to grow so that they have a ricey appearance. These disorders are most effectively inhibited by low temperatures. Thus, the application of crushed ice or snow before transit, or in lieu of storage, is strongly recommended.

Tests in Britain have indicated that the storage life of cauliflower may be extended 2 weeks by the use of controlled atmosphere storage. The conditions suggested are 10 percent carbon dioxide, 11 percent oxygen, and 79 percent nitrogen at a temperature of 32-34° (0-1.1°C).

Grade Standards in Effect for Fresh and Processed (frozen) Cauliflower[2]

The grades for cauliflowers are Canada No. 1 and Canada No. 2.

Canada No. 1 Grade

1. Canada No. 1 is the grade name for cauliflowers that:
   - (a) have compact heads,
   - (b) have wrapper leaves that are fresh and green and not damaged or unsightly,
   - (c) have had superfluous leaves removed but the heads of which are, unless individually wrapped, protected by a ring of wrapper leaves,
   - (d) are free from heads of abnormal colour or of a loose or granular appearance commonly known as "riciness",
   - (e) are free from decay,
   - (f) are free from damage,
   - (g) have a minimum head diameter of 4 inches,
   - (h) do not, when in a package, vary more than 2 inches in diameter, and
   - (i) are properly packed.

2. In this section, "free from damage" means that the cauliflowers are free from:

(a) overmature heads that are loose, open or turning yellow,

(b) any injury or defect, or a combination thereof, other than as referred to in paragraphs (a), (c) and (d) that materially affects the appearance, edibility or shipping quality of the heads or that seriously affects the wrapper leaves;

and in the case of an individual cauliflower, means that the cauliflower is free from:

(c) enlarged bracts that have grown up through and extended beyond the curd and materially affect the appearance of the head; and

(d) stems of the individual flower buds that have begun to elongate resulting in the surface of the head having a fuzzy appearance.

Canada No. 2 Grade

Canada No. 2 is the grade name for cauliflowers that:

(a) have fairly compact heads,

(b) are free from heads of abnormal colour,

(c) are free from decay,

(d) are free from any injury or defect or a combination thereof, other than an injury or defect referred to in paragraphs (a), (b) and (c), that

(i) seriously affects their appearance, edibility or shipping quality, or

(ii) cannot be removed without altering the shape of a head; and

(e) are properly packed.

General Tolerances

Notwithstanding anything in these Regulations, in the grading of cauliflowers not more than:

(a) 5 percent of the cauliflowers by count may be below the minimum size,

(b) 10 percent of the packages, where the cauliflowers are in packages, may contain fewer or more heads than the number marked thereon or contain heads that exceed the permitted size variation,

(c) 2 percent of the cauliflowers by count may be affected by decay,

(d) 5 percent of the cauliflowers by count may have the same grade defect, and

(e) 10 percent of the cauliflowers by count may have grade defects other than those referred to in paragraphs (a) and (b) but including those referred to in paragraphs (c) and (d).

and still meet the grade standards for a grade.

CELERY

INTRODUCTION:

Virtually all celery produced in B.C. is grown in the lower mainland region. One hundred and seventy acres were planted in 1983 yielding 8,791,000 lbs. Seven acres were planted on Vancouver Island yielding 124,000 lbs. Climatic conditions have prevented viable production of celery in the interior of the province. While potential to produce in this area is evident, heavy irrigation would likely be required. To date, all celery produced in B.C, is sold on the fresh market. Research is underway to investigate the feasibility of producing and marketing celery juice from culls, however, conclusive results have yet to be implemented commercially.

Production and Marketing of celery fall under the administration of the B.C. Vegetable Commission. It's sales agency, the Cloverdale Lettuce and Vegetable Co-op cools, grades, trims and packs and markets celery to B.C. wholesalers on the grower's behalf. Prices are set weekly in accordance with prevailing market conditions both locally and in major competing areas of supply. Depending on the grade out of their product, growers realize a pooled price on a regular basis with deductions for administration and handling fees.

1983 saw record volumes of celery produced on the lower mainland. Over 135,000 cases were shipped through Cloverdale Lettuce and Vegetable Co-op as compared to levels of 104,000-106,000 cases years previous. Because of relatively high grower returns in 1983, the co-op is forecasting another heavy volume season in 1984. Heavy rains earlier this Spring are not expected to result in any appreciable crop damage.

Volumes:

As unload data indicates, California is B.C.'s major competing area of supply. An average 1.6 million lbs. of celery has been shipped on a monthly basis through the Vancouver wholesale market over the last five calendar years. As the following figures suggest,

the total size of the market (total annual unloads to the Vancouver wholesale market) has remained relatively stable, at approximately 20 million pounds.

	Total Unloads (000's lbs.)	B.C. Unloads (000's lbs.)	Cal. Unloads (000's lbs.)	B.C. % Mkt. Share* (000's lbs.)
1979	20,253	5,544	15,261	73 %
1980	20,423	5,260	15,137	68 %
1981	20,458	5,946	14,503	66 %
1982	19,335	5,903	13,415	73 %
1983	18,898	6,242	12,656	76 %

*B.C.'s market share during the peak local marketing season months (July to November, inclusive)

B.C. shipments during this time period have increased slightly, but consistently. Over 6.2 million pounds were shipped to the Vancouver wholesale market in 1983, in addition to small export loads to the prairie provinces. Simultaneously imports from California, have for the most part, declined. As these figures suggest, B.C.'s market share (during peak months of local production was lowest in 1981 at 66%, a generally disastrous crop year in the Fraser Valley, and highest in 1983 at 76%.

Obvious potential exists for expansion of local production given that a number of marketing issues are addressed. Growers may want to consider the possibility of producing stronger volumes in July. This would allow for earlier displacement of California imports during the opening of the season when quality is apt to be more consistent.

Price:

As with cauliflower, the price B.C. growers realize for their celery is very dependent on market conditions in California. A simple pricing formula is used to establish a landed Vancouver price from (see page 9-cauliflower) the range of F.O.B. prices quoted daily from shipping houses in California. To the 'average' F.O.B. price, cooling, palletizing, customs clearance and inspection charges are added, (usual total equals $.65 U.S. $). This total is then converted into Canadian dollars. If the tariff is applicable, it is added at this stage. To this total, the cost of transportation is added, to arrive at a sum representing the L.V.P.

Assuming a range of F.O.B. quotes on size 2-2 1/2's.
7.00-8.00, U.S. $ (2-2 1/2's)

A range of L.V.P.'s is calculated as follows:

(A)	7.00	(U.S. $)	8.00	
	plus .65		.65	(cooling, etc.)
	7.65		8.65	
(B)	multiplied by:			
	7.65		8.65	
	1.32		1.32	-current U.S. exchange rate
	10.10	(Cdn. $)	11.42	
(C)	multiplied by:			
	10.10		11.42	
	1.15		1.15	tariff if applicable (see 'tariffs' for further detail)
	11.62		13.13	

(D) Transportation rate:

-a case of celery weighs approximately 60 lbs.

-current transportation rates out of the Salinas Valley are averaging 4.7 cents per (U.S. $) pound. Therefore the cost of transporting a case of celery to Vancouver is roughly $2.80 (U.S.$). This multiplied against the current exchange rate (1.32) results in a Cdn. $ rate of $3.70.

(D) Transportation rate--continued
The transportation rate is then added to the total arrived at in steps (B) and (C) depending on applicability of tariff, to result in the LVP.

e.g. (B) without tariff:

	10.10	11.42
plus	3.70	3.70
	13.80	15.12

LVP

(C) with tariff:

11.62	13.13
3.70	3.70
15.32	16.83

Therefore, we can see that an F.O.B. range of $7.00-8.00, U.S. $ (2's, 2 1/2's) results in an LVP range of $13.80-15.12 Cdn. $ without the tariff in effect, and $15.32-16.83 Cdn. $, with the tariff applied.

Growers should acknowledge that variable costs such as cooling, transportation etc. can alter the LVP and as such, should be updated regularly. In very soft market conditions, shipping houses will often quote F.O.B. prices 'on the truck', and as such, will absorb cooling charges themselves. Tight trucking availability can often inflate transportation costs in the short run. Per unit transportation rates will usually be higher on crops where straightloads (40,000 lbs.) are not being purchased (generally, wholesalers could be importing straightloads of celery to the Vancouver market below the above listed rates).

PRICING HISTORY:

As the accompanying price table indicates, the 1983 season opened at relatively low prices, rose and stabilized late July at higher levels until the conclusion of the season. While a fair gap exists between the LVP of California celery, and local F.O.B. Vancouver prices, much can be explained by the unload graph.

As local prices are levelling off throughout the month of August, local volumes are peaking. Prices escalate rapidly throughout September as local volumes begin to decline.

Analysis of celery prices over a three year time series only serves to indicate that this commodity is particularly sensitive to fluctuation in the short run. It is impractical to suggest that prices will fall within a predictable range from year to year. At best, we can suggest that given relatively stable supply and demand conditions in our competing markets, consistent quality and quantity, local growers will likely realize a pricing pattern similar to that of the 1983 season.

As an example of the variability in pricing that this crop regularly experiences, growers should note that the LVP of 2-2 1/2's ranged from $11.90 (Cdn. $) to $25.50 during the first five months of 1984.

In conclusion, existing and prospective growers should acknowledge that the following characteristics apply to the price history of celery:

(1) Local pricing is very dependent on prevailing market conditions in California, our major competing area of supply.
(2) As a perishable crop, supply and demand conditions can change markedly in the short run given variance in weather, availability of trucking, holidays, etc.
(3) Prices can and do vary significantly throughout the growing season.
(4) Local prices should not be compared on a year to year basis. At least a five year base should be considered when evaluating price trends. Outside of long range crop outlooks, market forecasting for a crop of this nature is not practical. Strong prices in 1983 do not guarantee a successful 1984 season.

CALIFORNIA CELERY ACREAGE:

Latest U.S.D.A. acreage surveys indicate an increase in total California celery acreage as of May 1, 1984. Acreage growing in the state of California was estimated at 6,880 May 1, 1984 as compared to 5,840 in May 1983. By district, this breaks out as follows:

	ACRES	
	May 1, 1983	May 1, 1984
San Diego	30	30
Orange, Riverside, Imperial Valley	260	245
Ventura County	3,165	3,400
Santa Maria	1,085	1,200
Salinas, Watsonville and Other	1,300	2,005
TOTAL	5,850	6,880

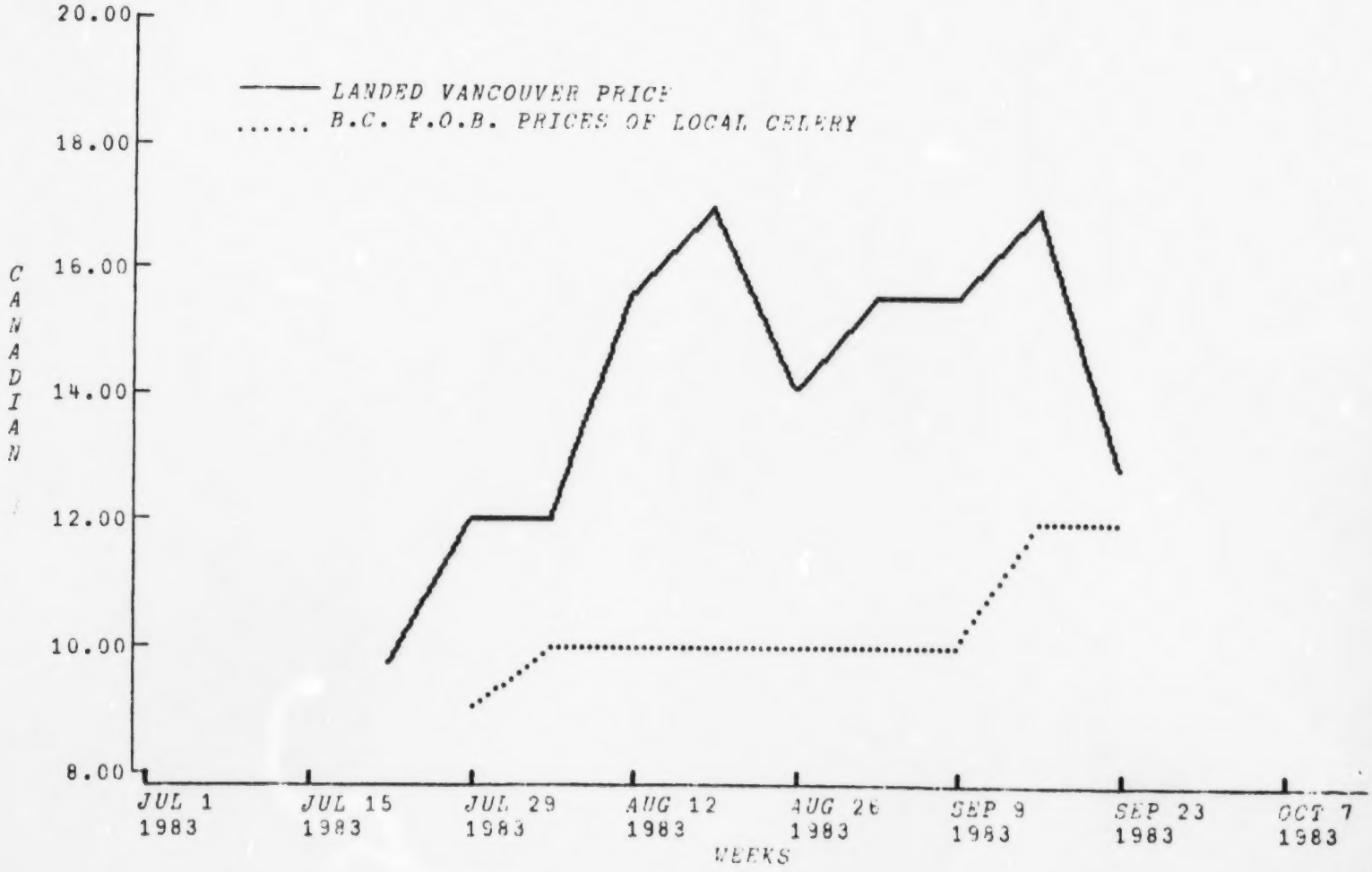
This Spring, weather was particularly suitable for celery planting. Harvest in the south coast counties continued at a steady pace. Prices were under pressure, particularly in Salinas, Watsonville during much of May and June reflecting strong volumes of good quality celery throughout the summer months given that relatively stable weather conditions prevail

QUALITY LOCAL MARKET SPECIFICATIONS:

Discussions with wholesalers indicated strong support for local celery given that a few criteria are met. Wholesalers unanimously stated a need for high quality product, competitive with that imported from California. A number expressed concern that local product was at times, bitter, stringy, and too dark in colour. In general, a number suggested that a noticeable improvement in quality and weights was observed in 1983.

WEEKLY LANDED VANCOUVER PRICES OF CALIFORNIA CELERY, CDN DOLLARS
WEEKLY VANCOUVER F.O.B. PRICES OF B.C. CELERY

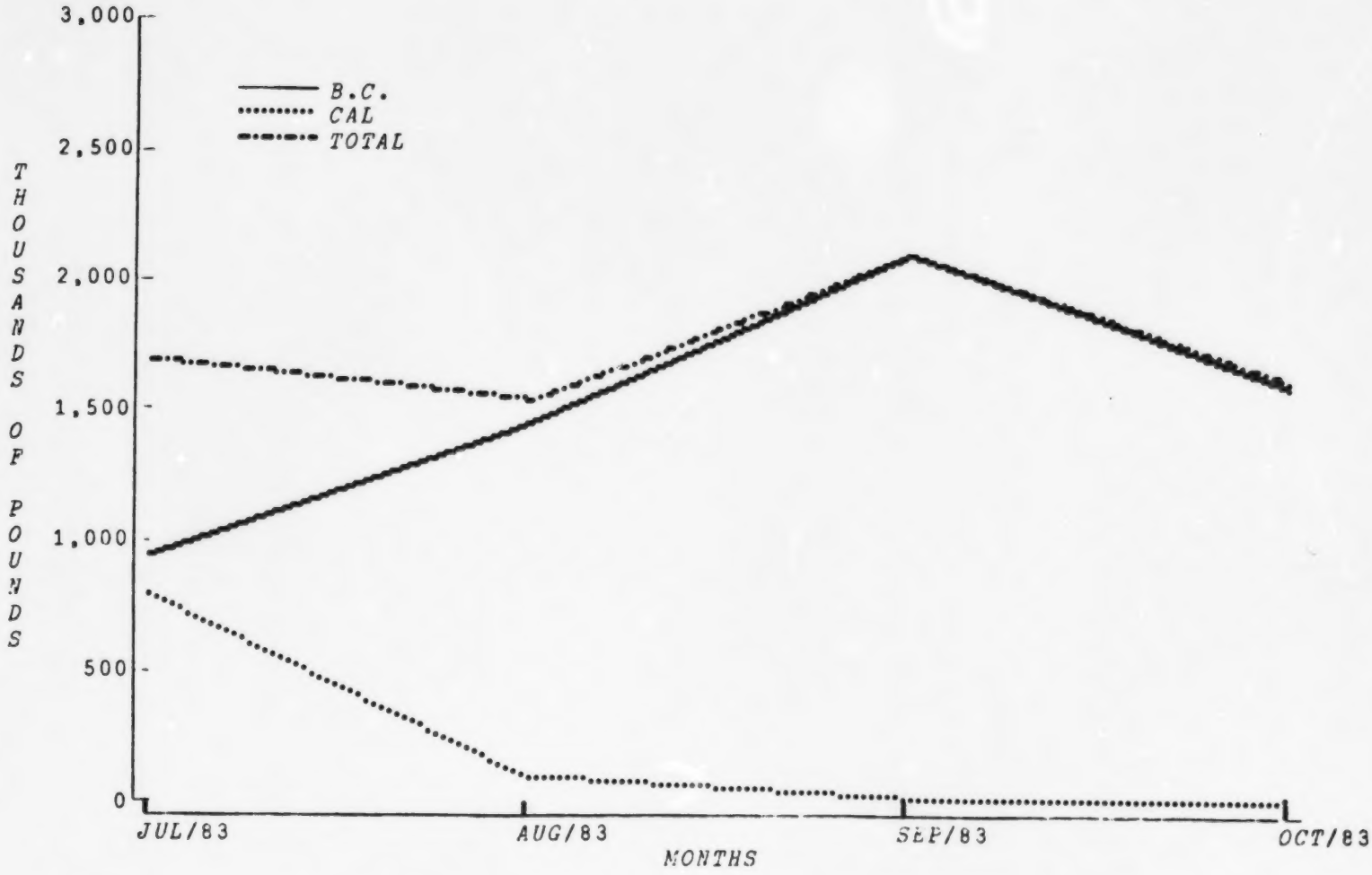
1983 SEASON



SIZES 2's and 2½'s

UNLOADS OF CELERY TO THE VANCOUVER WHOLESALE MARKET BY SOURCE

1983 SEASON



Grade Standards in Effect for Celery

The grades for celery are Canada No. 1, Canada No. 1 Heart and Canada No. 2.

Canada No. 1 Grade

1. Canada No. 1 is the grade name for celery that:
   (a) is fresh,
   (b) is trimmed so that any outside coarse or damaged branches have been removed and the portion of the main root remaining is not more than 3 inches in length,
   (c) has stalks that have inner heart branches of a number, length and stockiness characteristic of the variety when mature,
   (d) is free from heart rot and stalks that plainly show the formation of seed stems,
   (e) is free from damage,
   (f) has stalks of a minimum length of 12 inches, a minimum average midrib length of 7 inches and a minimum diameter of 2 1/2 inches if more than 24 stalks are packed in a package and a diameter of 3 inches if 24 or less stalks are packed in a package,
   (g) has, when in package, stalks that do not vary more than 1 1/2 inches in diameter or 2 inches in length,
   (h) is properly packed.

2. For the purposes of subsection (1),
   (a) the length of a stalk of celery is the distance from the point where the main root is cut off to a point which represents the average extremity of the outer whorl of branches,
   (b) the average midrib length is the average length of all the branches in the outer whorl measured from the point of attachment at the base to the first node; and
   (c) the diameter of a stalk of celery is the diameter 2 inches above the point where the lowest branch is attached to the base.

3. In this section, "free from damage" means that the celery is free from:
   (a) insect or mollusk injury that affects:
      (i) inner branches, or
      (ii) an aggregate area exceeding 1 square inch per stalk on the outer branches;
   (b) pithiness that affects more than 2 branches of any one stalk; or
   (c) any injury or defect, or a combination thereof, other than an injury or defect referred to in paragraphs (a) and (b), that materially affects its appearance, edibility or shipping quality.

Canada No. 1 Heart Grade

Canada No. 1 Heart is the grade name for celery that possesses the characteristics of Canada No. 1 grade except uniformity of size, minimum diameter and minimum stalk length.

Canada No. 2 Grade

1. Canada No. 2 is the grade name for celery that:
   - (a) is free from heart rot and from stalks that plainly show the formation of seed stems;
   - (b) is free from decay;
   - (c) is free from any injury or defect or a combination thereof that seriously affects its appearance, edibility or shipping quality;
   - (d) has stalks of a minimum diameter of 2 1/2 inches; and
   - (e) is properly packed.

2. For the purpose of subsection (1), the diameter of a stalk of celery is the diameter 2 inches above the point where the lowest branch is attached to the base.

General Tolerances

Notwithstanding anything in these Regulations, in the grading of celery not more than:

(a) 10 per cent of the packages, where the celery is in package, may contain more than 5 per cent greater or fewer stalks than the number of stalks marked thereon or contain stalks that exceed the permitted size variation;
(b) 5 per cent of the celery by count may be below the minimum diameter or length;
(c) 2 per cent of the celery by count may be affected by decay;
(d) 5 per cent of the celery by count may have the same grade defects; and
(e) 10 per cent of the celery by count may have grade defects other than those referred to in paragraphs (a) and (b) but including those referred to in paragraphs (a) and (b) but including those referred to in paragraphs (c) and (d).

and still meet the grade standards for a grade.

LETTUCE

Head lettuce is grown in varying quantity throughout the province, with the majority concentrated in the lower mainland. A total of 511 acres were produced on the lower mainland in 1983 yielding 16,102,000 lbs. With the exception of 31,000 lbs. sold roadside, all of this volume was marketed through the Cloverdale Lettuce and Vegetable Co-op.

On Vancouver Island, some 56 acres were planted in 1983, yielding 953,000 lbs. All of this volume was sold privately by growers either through roadside stands or direct to wholesalers.

Commercial volumes produced in other areas of the province have been minimal to date. Acreages have been planted throughout the interior with varying success. The cost of providing adequate irrigation has not always been economical in light of the high variability in returns for this crop.

Interest has been expressed by growers in the Kootenays for head lettuce production. Certainly market potential exists in interior markets given that growers can compete with the quality of product being shipped from the coast, and California.

Head lettuce is a regulated product, and as such, growers considering commercial production must be registered with the B.C. Vegetable Marketing Commission. As the vast majority of provinces' lettuce production occurs in the Fraser Valley, the Cloverdale Lettuce and Vegetable Co-op operates a large warehouse in Cloverdale with a high capacity vacuum cooling tunnel. Growers ship their lettuce to the warehouse as per a prearranged schedule throughout the marketing season. There, the product is cooled, graded and sold to the Vancouver wholesale market. Prices are set on a weekly basis in accordance with prevailing market conditions, and growers realize a pooled price with appropriate deductions for grade out, administration and handling.

In recent years much local production has been plagued with the destructive lettuce aphid. Heavy losses were sustained by several growers, and in general the local industry's perception of B.C. head lettuce eroded significantly. Last season the aphid was brought under control. A notable increase in quality was noted last year, and of greater significance, shipping volumes will once again, be somewhat more consistent. The co-op expects volumes to be similar to those marketed in 1983. However, while total volumes may be similar, supply gaps are likely given the heavy rains of the Spring. As such, maintaining consistent volume shipments to the market place will be difficult.

Volumes:

As unload data indicates, approximately 45 million pounds of head lettuce is shipped through the Vancouver wholesale market throughout the calendar year. Monthly shipments have averaged 3.8 million pounds with California supplying most of this volume during those months when local product is not available.

	B.C. Unloads '000 lbs.	Cal. Unloads '000 lbs.	TTL Unloads '000 lbs.	B.C. % of TTL %*
1979	15,439	32,137	47,918	63
1980	13,470	34,549	48,169	66
1981	9,767	35,069	45,014	51
1982	10,974	32,341	43,795	61
1983	12,712	30,827	43,553	73

*During peak months of local marketing season--June-October

During the local marketing season, June to mid October, B.C. has supplied approximately 63% of total market requirements. Total local season shipments have varied from a low of 9.7 million pounds in 1981 (a generally disastrous year in the Fraser Valley) to a peak of 15.4 million pounds in 1979. As this time series suggests, local market share was threatened during those years when the lettuce aphid

was particularly destructive. 1983 saw an increase in local volumes after a two year decline, and simultaneously, a drop in imports from California. Local market share rose to 73%, its highest level in this time series.

Certainly potential exists for increased production given that inconsistencies in volumes, on a week to week basis throughout the marketing season, can be minimized. While unloads to the Vancouver wholesale market do not represent total provincial production and disbursement of head lettuce, analysis of the figures can give a fairly accurate profile of the market at large. The global picture suggests that significant import displacement potential has yet to be realized. This must be tempered however, with thorough consideration of the economics involved. Growers must be prepared to provide competitive quality, sizing and weight with that imported from California. As well, acknowledgement of the high variability in expected rate of return is essential.

Price:

Any discussion of pricing in the lettuce market must feature the word risk prominently. Of the salad vegetables, lettuce is likely one of the crops most subject to drastic fluctuation in the short run. It is quite possible to see a $5.00 per case price spread on an F.O.B. quote for lettuce during the course of a five day week.

The price local growers receive for their lettuce is highly dependent on supply and demand conditions in California, B.C.'s major competing area of supply. Because of the huge volumes produced in the state of California, and the sensitivity this crop has to weather, scenarios such as a five day continuous stretch of hot weather can drastically alter supply conditions in the short run. During peak production periods, when major markets such as Salinas, Santa Maria, southern California are shipping collectively in excess of 500,000 cases daily, F.O.B. prices come under severe pressure. Even though local product may be available in quantity, when wholesalers have the option of landing quality lettuce in

Vancouver for $7.00 (cases/24's, Cdn. $), the incentive to do so is strong. Loyalty to home grown product can only be sustained if quality and price are competitive. Setting a local weekly price that will accommodate the distinct possibility of drastic fluctuations in our competing market entails sensitive weighting of the following factors.

(1) Anticipated local supply--this proves particularly challenging in a season such as 1984 when co-op personnel expect inconsistent volumes due to the erratic planting schedules earlier this Spring.

(2) Anticipated local quality, and individual head weights.

(3) Quality and quantity forecasts in California.

(4) Prevailing F.O.B. quotes in California.

(5) Volumes of complimentary salad vegetables. Lettuce cannot be marketed in isolation. Heavy supplies of tomatoes may warrant salad promotions by retailers, inferring strong short term demand for lettuce. Conversely, high tomato prices can inhibit movement of head lettuce if consumers generally purchase these items simultaneously.

(6) Home garden competition.

The LVP of lettuce forms the basis for local pricing. As covered in part I, (Cauliflower, page 9) of this package, calculation of the LVP entails working through a simple formula. Generally a total of 65 cents (U.S. $) is added to the U.S. $ F.O.B. quote for lettuce. Head lettuce is currently packed 24 heads to a case, with individual case weights ideally averaging 45-50 lbs. A tariff of 15% can be applied during the local marketing season, and

this is calculated into the LVP once cooling charges have been added to the F.O.B. and the total has been converted to Canadian dollars. Current transportation rates are averaging 4.7 - 5 cents (U.S. $) per pound for product originating in the Salinas/Watsonville area. With lettuce averaging 45-50 lbs. per case, transportation per case approximates $2.35, U.S. $

Growers should acknowledge that these variables (cooling, transportation) will change over time, and should be updated regularly. In particular, in soft market conditions, shipping houses may absorb cooling charges and offer product 'on the truck'. Transportation rates will vary with availability and energy cost factors.

As with most major produce items sold in California, a range of F.O.B. quotes are offered by shipping houses on a daily basis. Growers should be cautious that they interpret the range of resulting LVP's accordingly. The range often represents a fair variance in quality and weight.

Price History:

As the accompanying graph indicates, B.C. F.O.B. prices were fairly consistent relative to the numerous fluctuations in the LVP of California lettuce during the 1983 season. Local prices were strong for a brief period at the outset of the season, and then levelled off throughout most of July in the $7.00-8.00 range (24's) as volumes accelerated. A sustained decrease in volumes throughout much of August kept prices trending slightly upwards to settle at the $9.00 level for most of the season.

Consideration of many of the factors discussed in the previous section provides explanation for the significant margins between the California LVP and the local F.O.B.

As a general observation, local prices range between $7.00-10.00 on cases of 24's in a typical season. Local quantity and quality will skew pricing to the extremities of the range.

Local Market Specifications:

Discussions with wholesalers indicated a number of quality concerns with local lettuce. Observations of inconsistent weights, and inadequate trimming are the most frequent problems. In particular, wholesalers had reservations about the first lettuce crop of the season according to most surveyed. Wholesalers were emphatic in their insistence on consistent volume shipments. In market periods when this is impossible to achieve, wholesalers stressed the necessity of adequate lead time to arrange supplemental purchases.

In general, wholesalers indicated strong support for local product, and ongoing committment to facilitate marketing of B.C. lettuce in a mutually profitable manner.

California Market Outlook:

This Spring, unusually heavy volumes of lettuce have been harvested throughout California. During the March-May period, production in the San Joaquin Valley, Central Coast and South Coast was up 20%, 9% and 22% respectively. Total U.S. production was up 14%.

Indications are that production will remain strong throughout most of the summer months. Quality to date has been reported as good. As such, B.C. growers should acknowledge significant competition for much of the local season in 1984.

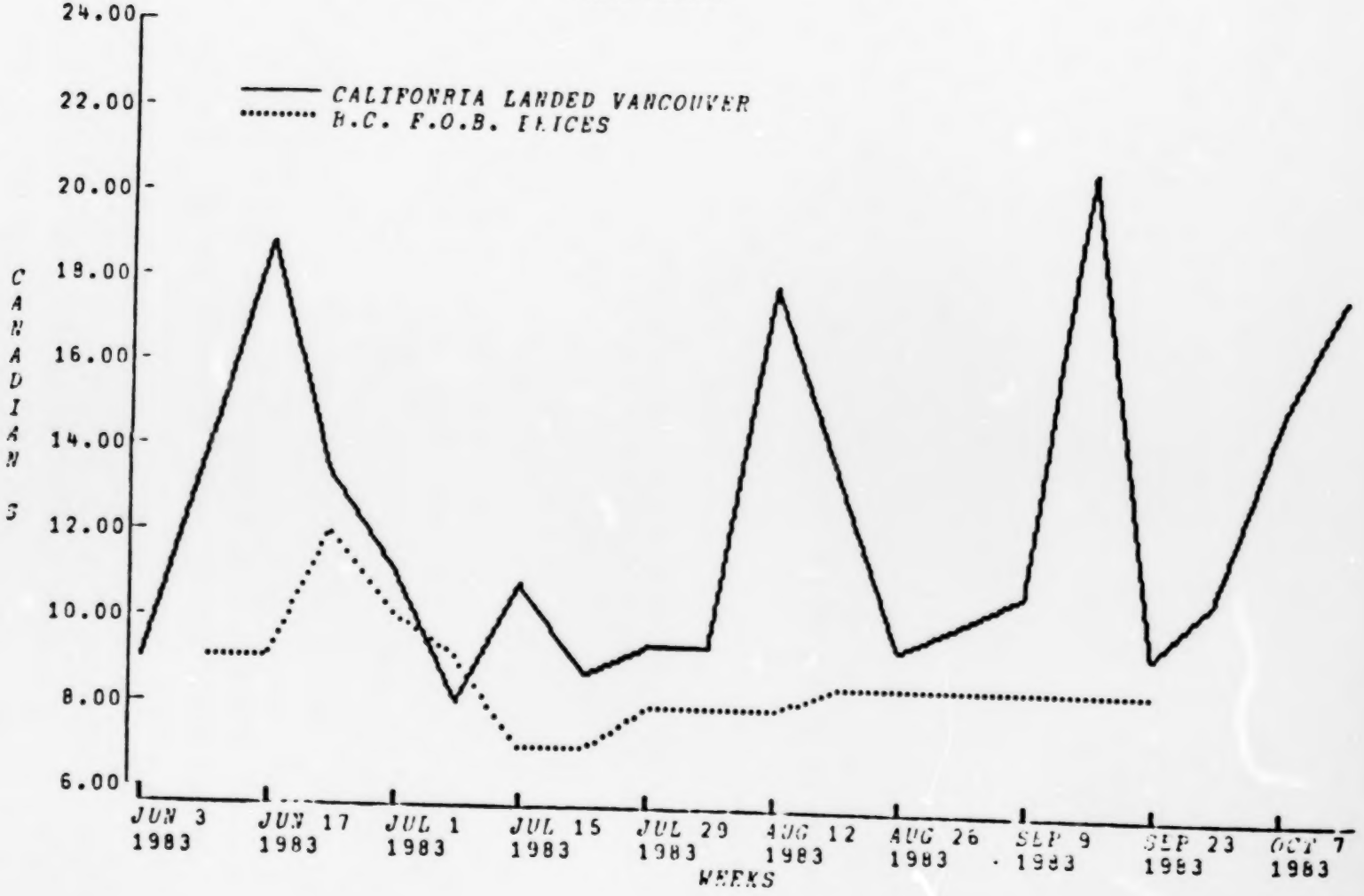
California Lettuce Production, March-May
Acres

	1982	1983	1984
San Joaquin	10,000	10,300	12,400
Central Coast	19,900	15,200	16,600
South Coast	1,000	900	1,100
Total	30,900	26,400	30,100

WEEKLY LANDED VANCOUVER PRICES OF CALIFORNIA HEAD LETTUCE

WEEKLY F.O.B. PRICES OF B.C. HEAD LETTUCE

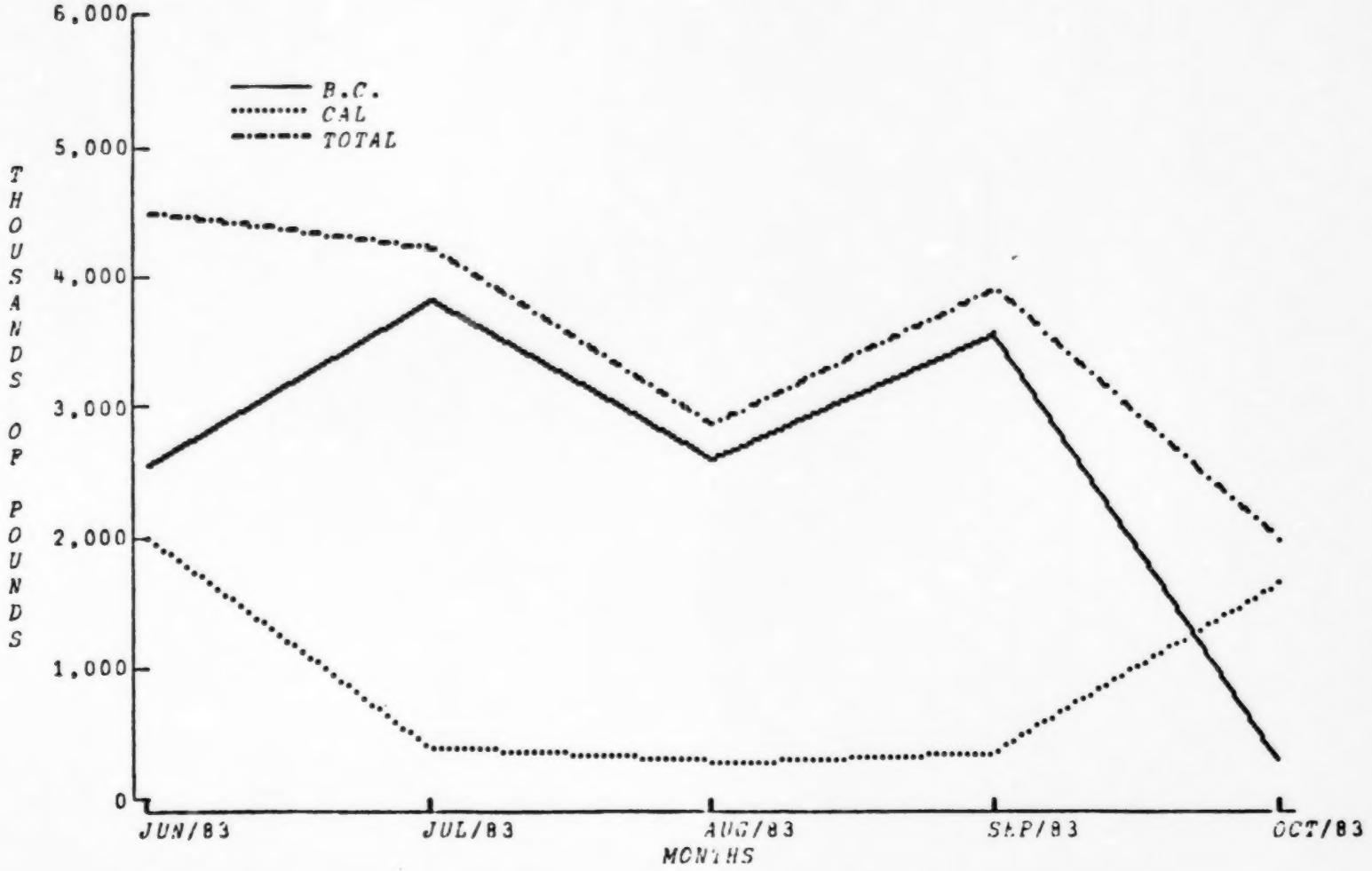
1983 SEASON



(24's)

UNLOADS OF HEAD LETTUCE TO THE VANCOUVER WHOLESALE MARKET BY SOURCE

1983 SEASON



Grade Standards in Effect for Lettuce

The grades for head lettuce are Canada No. 1 and Canada No. 2.

Canada No. 1 Grade

Canada No. 1 is the grade name for head lettuce that:

(a) has similar varietal characteristics;
(b) has head leaves that are crisp and wrapper leaves that are not more than slightly wilted;
(c) has, in the case of Iceberg type, heads that are compact and yield only slightly to pressure;
(d) is trimmed so that the butt is cut off close to the point of attachment of the wrapper leaves and any coarse, damaged or otherwise objectionable wrapper leaves have been removed, and in the case of Iceberg type, so that the heads do not have more than 8 wrapper leaves;
(f) is free from split or burst heads;
(g) is free from heads that plainly show the formation of the seed stem;
(h) is free from heads the shape of which clearly indicates more than one centre of growth;
(i) is free from decay, tipburn and brown blight;
(j) is free from any injury or defect or a combination thereof, other than an injury or defect referred to in paragraphs (b) and (i), that materially affects its appearance, edibility or shipping quality;
(k) does not, when in a package, vary more than 2 inches in diameter; and
(l) is properly packed.

Canada No. 2 Grade

Canada No. 2 is the grade name for head lettuce that:

(a) has similar varietal characteristics;
(b) has head leaves that are crisp and wrapper leaves that are not more than slightly wilted;
(c) has, in the case of Iceberg type, heads that show characteristic formation;
(d) is trimmed so that the butt is cut off close to the point of attachment of the outer leaves and any coarse leaves have been removed and, in the case of Iceberg type, so that the heads do not have more than 8 wrapper leaves;
(e) is free from split or burst heads;
(f) is free from heads that plainly show the formation of the seed stem;

(g) is free from heads the shape of which clearly indicates more than one centre of growth;
(h) is free from decay, tipburn and brown blight;
(i) is free from any injury or defect or a combination thereof, other than an injury or defect referred to in paragraphs (b) to (h), that
    (i seriously affects the appearance, edibility or shipping quality, and
    (ii) cannot be removed without a loss of some of the solid portion of the head; and
(j) is properly packed.

General Tolerances

Notwithstanding anything in these Regulations, in the grading of head lettuce not more than:

(a) 10 percent of the packages, where the head lettuce is in packages, may contain fewer or more heads than the number marked thereon or may contain heads that exceed the permitted size variation;
(b) 2 percent of the heads by count may be affected by decay in the compact portion;
(c) 3 percent of the heads by count including those referred to in paragraph (b) may be affected by decay; and
(d) 10 percent of the heads by count may have grade defects other than as referred to in paragraph (a) but including those referred to in paragraphs (b) and (c).

and still meet the grade standards for a grade.

REFERENCES:

1. Commercial Storages of Fruits and Vegetables, Publication 1532, Agriculture Canada, 1974

2. Canada Agricultural Products Standards Act, Fresh Fruit and Vegetable Regulations, Government of Canada, Amended to September 27, 1978

and,

Agricultural Produce Grading Act, B.C. Reg. 100/78, Order in Council 533, Approved and Ordered March 9, 1978.

APPENDIX I

TARIFFS:

During peak volume periods for local celery, cauliflower and lettuce, growers have the option of applying for implementation of a tariff. Essentially a tariff adds to the cost of importing a product from the country of origin. As such, the landed Vancouver price is increased. Tariffs are product specific, and do not apply to every Agricultural Commodity. They can be implemented for a designated number of weeks to specific countries. B.C. is part of the Western tariff region (everything west of Thunder Bay), and as such, when a tariff is implemented it applies to our entire tariff region. Thus, wholesalers from Vancouver to Thunder Bay will pay the duty on the imported item for the time period specified.

The tariff is implemented in order to increase LVP to a level that is easier for our growers to compete with. As such, it should only be implemented when there are adequate volumes of local produce to supply a fair percentage of Vancouver Wholesale Market requirements. As soon as local production is concluded the tariff should be cancelled. (The tariff will run the entire time period unless application for cancellation is made)

Application for a tariff on regulated commodities is initiated by the appropriate sales agency. For cauliflower, celery and head lettuce, the Cloverdale Lettuce and Vegetable Co-op alerts the B.C. Vegetable Marketing Commission when local volumes warrant application of a tariff. The Commission then requests, via telex, the Canadian Horticultural Council for tariff application. Assuming agreement from the other provinces in our region, the tariff is usually implemented within 5-7 working days.

The following tariffs are in effect for cauliflower, celery and lettuce:

(1) Cauliflower:

In any 12 month period ending March 31st, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 20 weeks, which may be divided into two separate periods, and the Free rate shall apply whenever the specific duty (cents per pound) or ad valorem (% of price) duty is in effect.

DUTY: 1 cent per pound but not less than 5% or FREE.

(2) Celery:

In any 12 month period ending March 31st the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 18 weeks and the FREE rate shall apply whenever the specific duty or ad valorem duty is not in effect.

DUTY: 2 cents per pound but not less than 15% or FREE.

(3) Lettuce:

In any 12 month period ending March 31st, the specific duty or ad valorem duty, as the case may be, shall not be maintained in force in excess of 16 weeks which may be divided into two separate periods and the FREE rate shall apply whenever the specific duty or ad valorem duty is not in effect.

DUTY: 1.25 cents per pound but not less than 15% or FREE.

APPENDIX II

AGENCY PERSONNEL:

Growers wishing information on quotas, market regulations, and the role of the B.C. Vegetable Marketing Commission and its sales agencies are asked to contact:

Ralph Towsley -- Secretary Manager
B.C. Vegetable Marketing Commission
#212, 17704-56th Ave.,
Surrey, B.C. V3S 1C7
Phone: 576-8291

The Cloverdale Lettuce and Vegetable Co-op
George Rush, Manager
Bob Armitage, Sales Manager
5590-152nd St.,
P.O. Box 1185,
Surrey, B.C. V3S 4P6
Phone: 576-9101
(packing and marketing of cauliflower, celery and lettuce (head).

For information on warehouse operation, quotas, grading, delivery, packing, etc.:

Contact: General Manager--George Rush - 576-9101
For information on pricing, sales--contact:
Bob Armitage - 576-8611

On Vancouver Island:

Growers should contact--
The Island Vegetable Growers Co-op--
Secretary-Manager--Darryl Peterson, 382-8203